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**SUBJECT: LINUX PROGRAMMING**

**TOPIC: ASSIGNMENT 2**

**Linux Programming: Assignment-2 Answers**

**1. What does the command pwd, whoami, and hostname display?**

* pwd shows the current working directory, whoami shows the current logged-in user and hostname shows the system's hostname

**2. Write the command to create a directory named 'project' inside the /home/student folder and keep three .txt file into it.**

* mkdir /home/student/project cd /home/student/project touch file1.txt file2.txt file3.txt

**3. Explain the difference between absolute path and relative path with proper examples.**

* Absolute path gives the full path from root, e.g., /home/student/project/file1.txt. Relative path is based on the current directory, e.g., ./project/file1.txt.

**4. What command will give you the already executed command traces in the terminal?**

* The history command shows the list of already executed commands

**5. Compare the working functionality of find and locate command. Which one is faster and why?**

* find searches files by scanning directories in real time, which is slower. locate searches from a pre-built database, so it is faster.

**6. Which command is used to modify file permissions in Linux? Give an example.**

* chmod is used to change file permissions. Example: chmod 755 file.sh

**7. A file has permissions -rw-r--r--. What does this mean?**

* Owner can read and write,group can only read and others can only read.

**8. Explain the difference between chown and chgrp with an example.**

* chown changes the owner of a file.  Example: chown user1 file.txt chgrp changes the group of a file.  Example: chgrp staff file.txt

**9. A file needs to be accessible by multiple users but only writable by the owner. How will you set permissions?**

* Set permission as 644. This allows owner to read and write, while others can only read.

**10. How do you check the manual page for any Linux commands?**

* By using the man command. Example: man ls